1. Record Nr. UNINA9910765475803321

Titolo	Nanomaterials and Nanoliquids : Applications in Energy and Environment / / Dharmendra Tripathi [and three others], editors
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore Pte Ltd, , [2023] ©2023
ISBN	981-9969-24-7
Edizione	[First edition.]
Descrizione fisica	1 online resource (316 pages)
Collana	Advances in Sustainability Science and Technology Series
Disciplina	620.115
Soggetti	Nanostructured materials
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Overview of the major types of nanomaterials used for environmental and energy applications: Challenges and prospects -- Graphene and its derivatives for desalination membrane and environmental applications -- An impact of nanotechnology for water treatment process -- Adoption of the green energy technology for the mitigation of greenhouse gas emission: Embracing the goals of the Paris agreement -- Prospects of Alcohols with Nanoparticles as an Alternative & Renewable Automotive Engine Fuels -- Battery thermal management (BTM) by using hybrid nanofluid and porous medium in the cooling channel -- Phenolic effluent treatment using advanced nanomaterials -- Nanoparticles and Nanocomposites for Heavy Metals Removal -- Advances in Solar desalination system by the application of Nanotechnology -- Mixed Convective Flow on Nanoparticle Shape Effects over a Stretching Sheet -- Entropy Generation Analysis during Heat Transfer by Darcy-Forchheimer Flow of water-based Al2O3 nanofluid over a Curved Stretchable Surface -- Numerical modelling of electromagnetohydrodynamic (EMHD) radiative transport of hybrid Ti6Al4V-AA7075/H2O nanofluids from a Riga plate sensor surface -- Heat transfer in EMHD hyperbolic tangent ternary hybrid nanofluid flow over a Darcy-Forchheimer porous wedge surface: A numerical simulation.
Sommario/riassunto	This book discusses recent work on the use of nanoparticles in energy and environment-related work. This book presents experimental,

numerical, analytical, and theoretical work on the use of nanomaterials in energy and environment. This book helps to highlight cutting-edge research and is a ready reference for the researchers working in this arena of academia and industries. This book provides insights related to various forms of nanotechnological applications in green buildings, environmental and electrochemical, solar distillation systems, green energy, storage tank of the SWH system, solar concentrator system's receiver, and CFD simulations of various aspects of nanofluids/hybrid nanofluids, which are particularly useful, valuable for the betterment of society.